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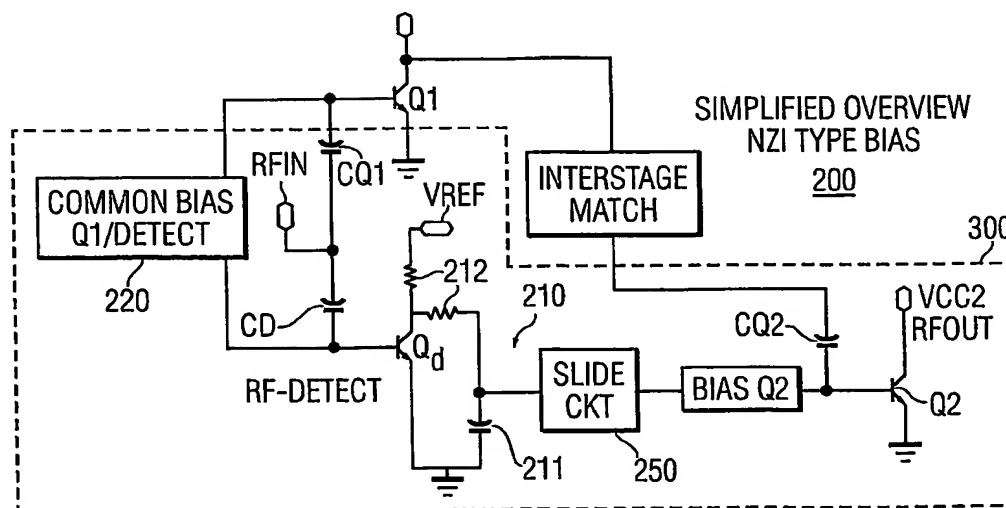
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(54) Title: SELF ADAPTABLE BIAS CIRCUIT FOR ENABLING DYNAMIC CONTROL OF QUIESCENT CURRENT IN A LINEAR POWER AMPLIFIER



(57) Abstract: A radio frequency (RF) linear power amplifier having an output transistor, and including a circuit means for generating a bias signal producing a quiescent current flowing through the output transistor; a detector circuit for detecting RF input to the amplifier and generating a driving signal according to a power level of the RF input; and a self-adaptable circuit for receiving the driving signal and automatically modifying the bias signal and the quiescent current through the output transistor. The quiescent current at the output stage is reduced and optimized for minimum dissipation and optimal linearity at all power output levels. The bias circuit for the radio frequency (RF) linear power amplifier includes a self-adaptable circuit that dynamically modifies the quiescent current for an output stage amplifier by automatically tracking an RF signal input to the amplifier at power ranges above a certain power output threshold.

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